

518/26

Patent claims

1. A composition comprising

- (a) an epoxy resin,
- (b) an OH-terminated polysiloxane,
- (c) a cyclic polysiloxane and
- (d) a non-ionic, fluoroaliphatic surface-active reagent.

2. A composition according to claim 1, comprising,

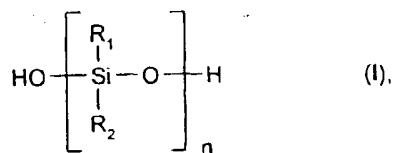
based on the total composition (a), (b), (c) and (d),
 from 77.0 to 97.99 % by weight component (a),
 from 1.0 to 10.0 % by weight component (b),
 from 1.0 to 10.0 % by weight component (c) and
 from 0.01 to 3.0 % by weight component (d),
 the sum of components (a), (b), (c) and (d) being 100 % by weight.

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3. A composition according to claim 1, comprising as component (a) a cycloaliphatic epoxy resin or an epoxidation product of a natural unsaturated oil or a derivative thereof.

4. A composition according to claim 1, comprising as component (a) hexahydrophthalic acid diglycidyl ester and 3,4-epoxycyclohexylmethyl 3',4'-epoxycyclohexanecarboxylate as well as epoxidised soybean oil or epoxidised linseed oil.

5. A composition according to claim 1, comprising as component (b) a polysiloxane of formula I

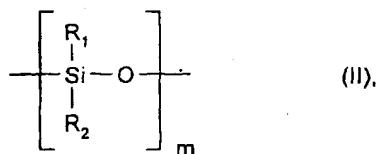


wherein R₁ and R₂ are each independently of the other C₁-C₁₈alkyl, C₅-C₁₄aryl or C₆-C₂₄-aralkyl and n is an average value of from 3 to 60.

6. A composition according to claim 5, comprising as component (b) a polysiloxane of formula I wherein R_1 and R_2 are each independently of the other methyl, ethyl or phenyl.

7. A composition according to claim 5, comprising as component (b) a polysiloxane of formula I wherein R_1 and R_2 are methyl.

8. A composition according to claim 1, comprising as component (c) a cyclic polysiloxane of formula II

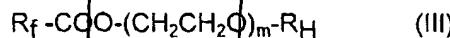


wherein R_1 and R_2 are each independently of the other C_1 - C_{18} alkyl, C_5 - C_{14} aryl or C_6 - C_{24} -aralkyl and m is an integer from 3 to 12.

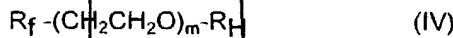
9. A composition according to claim 8, comprising as component (c) a cyclic polysiloxane of formula II wherein R_1 and R_2 are each independently of the other methyl, ethyl or phenyl and m is an integer from 3 to 8.

10. A composition according to claim 8, comprising as component (c) octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, dodecamethylcyclohexasiloxane or a hydrolysate of dimethyldichlorosilane.

~~11. A composition according to claim 11, comprising as component (d) a non-ionic, fluoro-aliphatic surface-active reagent of formula~~



or



wherein m = 1 to 200, R_f is a linear or branched perfluorinated alkyl having from 2 to 22 carbon atoms and R = H, C_1 - C_6 alkyl or R_f .

12. A composition according to claim 11, comprising as component (d) compounds of formula (III) or (IV) in which the molecular mass according to the theoretical empirical formula is from 300 to 8000.

13. A composition according to claim 12, comprising as component (d) 1,1,2,2-tetrahydro-perfluorooctanol or $R_f\text{-COO-(CH}_2\text{CH}_2\text{O)}_m\text{-R}$, wherein R_f is a linear perfluorinated alkyl having from 16 to 18 carbon atoms, $m = 110\text{-}130$ and $R = H$.

14. A composition according to claim 1, additionally comprising as further component (g) emulsifiers or thickeners.

15. A composition according to claim 14, comprising as component (g) from 0.01 to 3.5 % by weight, based on the sum of components (a) to (d), highly dispersed, hydrophilic, untreated silicic acid.

16. A composition according to claim 1 or 14 or 15, additionally comprising a curing agent.

17. A composition according to claim 16, wherein the curing agent is selected from a polycarboxylic anhydride (e) or from a polycarboxylic anhydride (e) together with an accelerator (f).

18. A composition according to claim 16, wherein the curing agent is an initiator system for the cationic polymerisation.

19. A composition according to any one of claims 1 or 14 to 18, which comprises fillers. X

20. A composition according to claim 19, which comprises as filler quartz powder, silanised quartz powder, aluminium hydroxide or aluminium oxide. X

21. A crosslinked product obtainable by curing a composition according to any one of claims 1 to 20. X

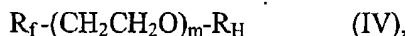
IN THE CLAIMS:

Please amend claim 11 as follows:

11. (amended) A composition according to claim 1, comprising as component (d) a non-ionic, fluoroaliphatic surface-active reagent of formula



or



wherein m=1 to 200, R_f is a linear or branched perfluorinated alkyl having from 2 to 22 carbon atoms and R = H, C₁-C₆ alkyl or R_f.

Please cancel claims 16-22.

Kindly add new claims 23-35, as set forth below.

23. A composition according to claim 1, additionally comprising a curing agent.

24. A composition according to claim 23, wherein the curing agent is selected from a polycarboxylic anhydride (e) or from a polycarboxylic anhydride (e) together with an accelerator (f).

25. A composition according to claim 23, wherein the curing agent is an initiator system for cationic polymerisation.

26. A composition according to claim 14, additionally comprising a curing agent.

27. A composition according to claim 26, wherein the curing agent is selected from a polycarboxylic anhydride (e) or from a polycarboxylic anhydride (e) together with an accelerator (f).

28. A composition according to claim 26, wherein the curing agent is an initiator system for cationic polymerisation.

29. A composition according to claim 15, additionally comprising a curing agent.

30. A composition according to claim 29, wherein the curing agent is selected from a polycarboxylic anhydride (e) or from a polycarboxylic anhydride (e) together with an accelerator (f).

31. A composition according to claim 29, wherein the curing agent is an initiator system for cationic polymerisation.

32. A composition according to claim 1, which comprises filler.

33. A composition according to claim 32, in which the filler is selected from the group consisting of quartz powder, silanised quartz powder, aluminium hydroxide and aluminium oxide.

34. A crosslinked product obtainable by curing a composition according to claim 1.

35. An electrical insulating material according to claim 34.

REMARKS

Claims 1-22 are present in the above-referenced International Application, upon which this National Stage Application is based. New claims 23-35 contain the same subject matter as original claims 16-22, but have been rewritten to eliminate the multiple dependencies. Accordingly, no new matter has been added.

Claim 11 has been amended to correct a typographical error.